

PARTMENT OF COMMUNITY PLANNING, HOUSING & DEVELOPMENT
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FOREIGN POPULATION

2005-2009 AMERICAN COMMUNITY SURVEY

April 2011



ARLINGTON
VIRGINIA

Department of Community Planning, Housing and Development
Planning Division
Planning Research and Analysis Team

Arlington Vision

“Arlington will be a diverse and inclusive world-class urban community with secure, attractive residential and commercial neighborhoods where people unite to form a caring, learning, participating, sustainable community in which each person is important.”

— Arlington County Board

INTRODUCTION

2009 American Community Survey

This report, *Foreign Population, 2005-2009 American Community Survey*, is the second in a series to examine the 2005-2009 American Community Survey (ACS) 5-Year Estimates for Arlington County, Virginia. This report compares the estimates of the 5-Year ACS to the 2000 Census long form survey. Other report topics in this series include: age, households and families, race and ethnicity, income, employment, poverty, housing, language, commuting, and education.

The ACS is an annual survey, administered by the U.S. Census Bureau, that samples 3 million residential addresses throughout the United States. It replaces the long-form survey previously used in the decennial census. The 2005-2009 ACS is not an average of five years nor 60 months, rather the data collected are aggregated and spread evenly across the entire period represented without over-representing any particular month or year.

Availability

The ACS provides time period estimates on population characteristics that were collected over one, three, and five years. Figure 1 shows the collection dates for each of the published ACS data products. The data produced in the one-year estimate are most current to the year of collection. However, the 5-year estimate provides data that are not as current but more precise and reliable, due to a larger sample size.

Also shown in Figure 1, each period estimate is only published for areas with minimum population requirements. For example, the one-year estimate provides data annually for city/county geographic areas with populations of at least 65,000. The 2005-2009 ACS 5-year estimate, released in December 2010, is the first set of ACS data released at the Census tract and block group geographic level since the 2000 Census.

Figure 1: ACS Published Data

ACS Estimate	Data Collected	Published for Areas
2009 ACS (1-Year)	1/1/2009-12/31/2009	Populations 65,000+
2009 ACS (3-Year)	1/1/2007-12/31/2009	Populations 20,000+
2009 ACS (5-Year)	1/1/2005-12/31/2009	Almost any size

Sample Size

While the ACS replaces the decennial census long form, it is administered to a much smaller sample of the population. The 2005-2009 ACS 5-Year Estimate, data used for this and subsequent topic reports, sampled 12,285 individuals out of an estimated 206,405 Arlington residents. This sample size represents about 5.95 percent of Arlington's population. The sample size for the 2000 Census long form was more than double the ACS sample at 12.8 percent.

Margin of Error and Coefficients of Variation

Since the period estimates are based on a sample of the population, there is a margin of error (MOE) associated with each estimate. The MOE provides information on how much sampling error is associated with each estimate. A larger MOE indicates a less reliable estimate, relative to the size of the estimate. Since estimates vary, it can be difficult to decipher whether an estimate is reliable using the MOE.

Coefficients of variation (CV) are values that represent a percentage of variability and determine the reliability for an estimate. The CV is a ratio of the standard error to the estimated value. Estimates with lower CV are more reliable. For this series of reports, the CV will be used to determine if the estimates are reliable. Estimates with CV values below 5.00 are considered to be very reliable. For this and subsequent topic reports, estimates with CV values between 5.00 and 15.00 are considered slightly less reliable. Estimates with CV values higher than 15.00 are not considered reliable.

Significance Testing

Significance testing is important for determining whether the difference between the 2000 Census and 2005-2009 ACS 5-Year estimates are likely due to random chance (sampling error) or likely represent a true difference that exists in the population as a whole. This report identifies the statistical significance of the change in the estimates at a 90 percent confidence level. The U.S. Census Bureau uses standards set by the U.S. Office of Management and Budget for the categories of race and ethnicity listed on the survey.

FOREIGN POPULATION - OVERVIEW

2005-2009 American Community Survey

The data collected by the U.S. Census Bureau are used by federal agencies to develop programs for foreign-born individuals and refugees. These data are also used to evaluate the effectiveness of equal employment policies and programs under the Civil Rights Act.

The ACS collects information on the respondent's place of birth: either in the U.S. or outside of the United States. If born outside of the U.S., the respondent is asked to specify the year of entry.

Almost three-quarters of Arlington residents were born in the U.S., as can be seen in Figure 2. The majority of these people were born in states outside of Virginia. Only 19.8 percent of residents were born in the Commonwealth. Both estimates are considered to be reliable due to low CV values.

Native, born outside of the U.S., refers to people born in Puerto Rico, a U.S. Island Area, or with at least one U.S. citizen parent. A very small portion (2.3 percent) of Arlington's population falls in this category. The CV is slightly higher at 7.35, but it is still considered a reliable estimate.

The foreign born population makes up 23.0 percent of Arlington's population. An Estimated 47,560 residents were born in a foreign county. This estimate is reliable due to a low CV value of 1.95 percent.

Of those born outside of the U.S. (including both foreign born and native born outside of the U.S.) the largest share of residents entered the U.S. in the year 2000 or later. Figure 3 shows the distribution of those born outside of the U.S. by year of entry. The CV values range between four to five and are considered reliable.

Figure 2: Place of Birth

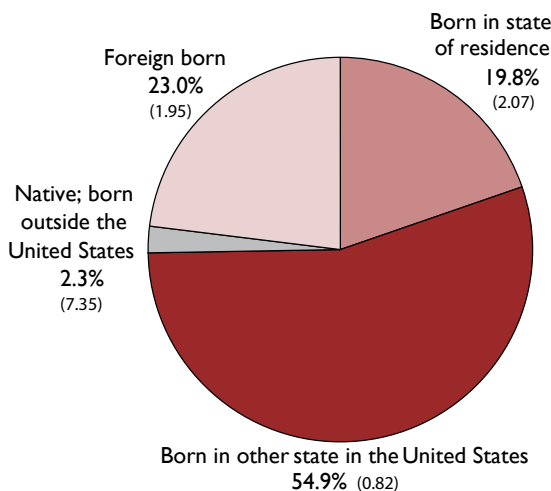
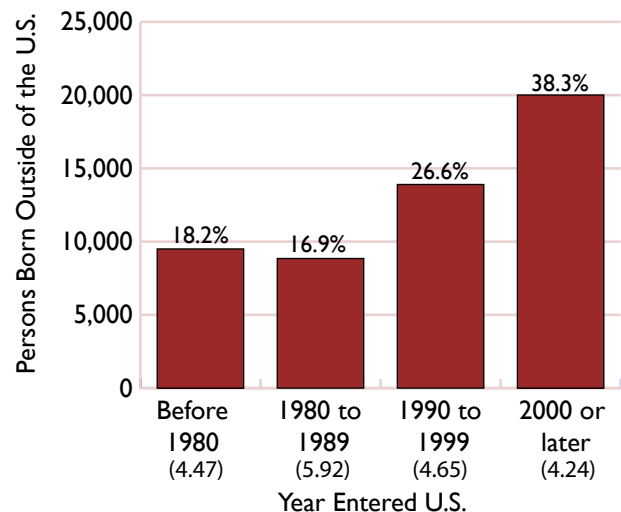


Figure 3: Year of Entry



Coefficient of Variation (CV) = Percent of Variability

Reliable = CV < 5.00

Less Reliable = 5.00 < CV < 15.00

Not Reliable = CV > 15.00

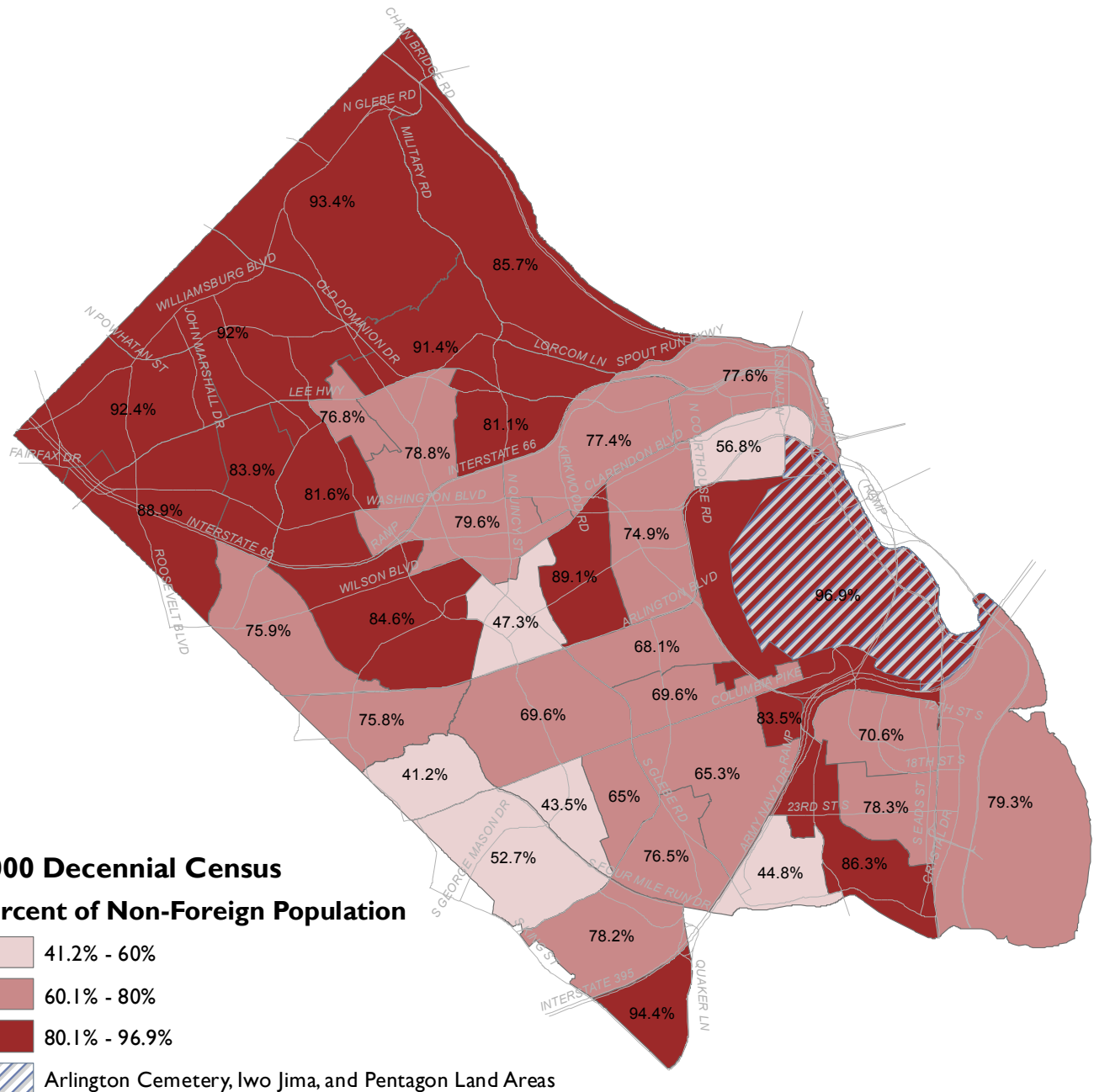
Non-Foreign Population

2000 Decennial Census

The map below shows the percentage of the non-foreign population per census tract from the 2000 Census. Similar to the 2005-2009 ACS, the higher percentages of the non-foreign population were concentrated in northern Arlington.

The Rosslyn-Ballston and the Jefferson Davis Corridors were shown to have lower percentages of the non-foreign population in 2000. One can assume that these areas had more foreign residents in 2000 than in 2005-2009.

Figure 5: 2000 Census Non-Foreign Population



RACE & ETHNICITY

Figure 6 compares the place of birth by Race & Ethnicity for 2000 and 2005-2009. Overall, the largest percent increase was for those residents born in the Commonwealth of Virginia. The number of Arlington

resident born in Virginia grew by 34.4 percent. 2,771 of these residents are of Hispanic or Latino origin. Since 2000, the number of foreign born residents decreased by 9.7 percent, representing 5,133 persons.

Figure 6: Race & Ethnicity by Place of Birth

Born in Virginia	2000		2005-2009 ACS			Change		Statistically Significant
	Persons	Percent	Persons	Percent	CV	Persons	Percent	
Total (Any Ethnicity)	30,443	100.0%	40,909	100.0%	(2.48)	10,466	34.4%	YES
White	19,798	65.0%	27,373	66.9%	(2.72)	7,575	38.3%	YES
Black/African American	5,439	17.9%	5,429	13.3%	(7.44)	-10	-0.2%	NO
Asian/Pacific Islander	1,217	4.0%	1,828	4.5%	(10.15)	611	50.2%	YES
Other/Multi-Racial	3,989	13.1%	6,279	15.3%	(8.41)	2,290	57.4%	YES
Hispanic/Latino	5,259	17.3%	8,030	19.6%	(6.53)	2,771	52.7%	YES

Born in Other US State	2000		2005-2009 ACS			Change		Statistically Significant
	Persons	Percent	Persons	Percent	CV	Persons	Percent	
Total (Any Ethnicity)	102,424	100.0%	113,245	100.0%	(0.87)	10,821	10.6%	YES
White	88,371	86.3%	98,487	87.0%	(0.77)	10,116	11.4%	YES
Black/African American	8,174	8.0%	6,857	6.1%	(5.63)	-1,317	-16.1%	YES
Asian/Pacific Islander	1,968	1.9%	3,146	2.8%	(7.14)	1,178	59.9%	YES
Other/Multi-Racial	3,911	3.8%	4,755	4.2%	(9.46)	844	21.6%	YES
Hispanic/Latino	3,954	3.9%	5,557	4.9%	(8.63)	1,603	40.5%	YES

Native/Born outside US	2000		2005-2009 ACS			Change		Statistically Significant
	Persons	Percent	Persons	Percent	CV	Persons	Percent	
Total (Any Ethnicity)	3,893	100.0%	4,691	100.0%	(7.51)	798	20.5%	YES
White	2,948	75.7%	3,383	72.1%	(7.82)	435	14.8%	NO
Black/African American	234	6.0%	244	5.2%	(41.86)	10	4.3%	NO
Asian/Pacific Islander	205	5.3%	167	3.6%	(32.85)	-38	-18.5%	NO
Other/Multi-Racial	506	13.0%	897	19.1%	(22.47)	391	77.3%	YES
Hispanic/Latino	832	21.4%	1,184	25.2%	(15.30)	352	42.3%	YES

Foreign Born	2000		2005-2009 ACS			Change		Statistically Significant
	Persons	Percent	Persons	Percent	CV	Persons	Percent	
Total (Any Ethnicity)	52,693	100.0%	47,560	100.0%	(2.52)	-5,133	-9.7%	YES
White	19,677	37.3%	17,987	37.8%	(4.07)	-1,690	-8.6%	YES
Black/African American	4,009	7.6%	4,195	8.8%	(10.74)	186	4.6%	NO
Asian/Pacific Islander	12,498	23.7%	12,359	26.0%	(2.55)	-139	-1.1%	NO
Other/Multi-Racial	16,509	31.3%	13,019	27.4%	(5.94)	-3,490	-21.1%	YES
Hispanic/Latino	25,167	47.8%	19,713	41.4%	(2.92)	-5,454	-21.7%	YES

Coefficient of Variation (CV) = Percent of Variability

Reliable = CV < 5.00

Less Reliable = 5.00 < CV < 15.00

Not Reliable = CV > 15.00

GENDER

The 2005-2009 ACS shows that place of birth estimates are nearly evenly distributed by gender. All 2005-2009 ACS estimates below in figures 7 and 8 are considered to be reliable, due to low CV values.

The majority of both males and females were born in another state other than the Commonwealth of Virginia. An estimated 1.9 percent greater share of females came from another state than males. However, the percentages of males born in Virginia or born in a foreign county slightly outweigh that of females by 1.2 and 0.6 percents respectively.

The native born population born outside of the United States is made up of an estimated 4,691 residents with the majority being female. An estimated 2.7 percent of the female population is native, born outside of the United States, compared to 1.8 percent of the male population.

The 2005-2009 ACS place of birth by gender estimates are not comparable to 2000 data.

Figure 7: Place of Birth (Male)

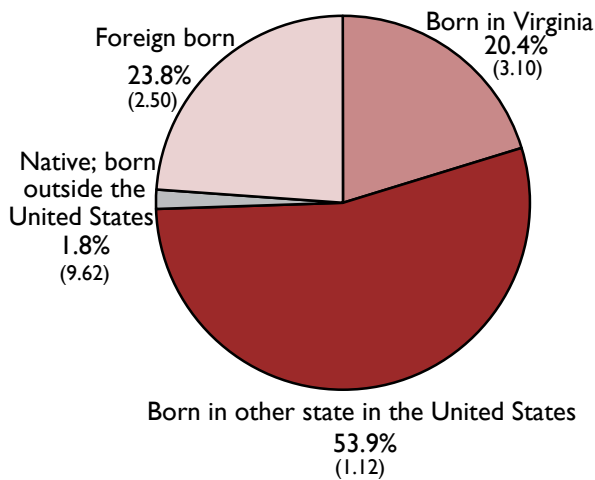
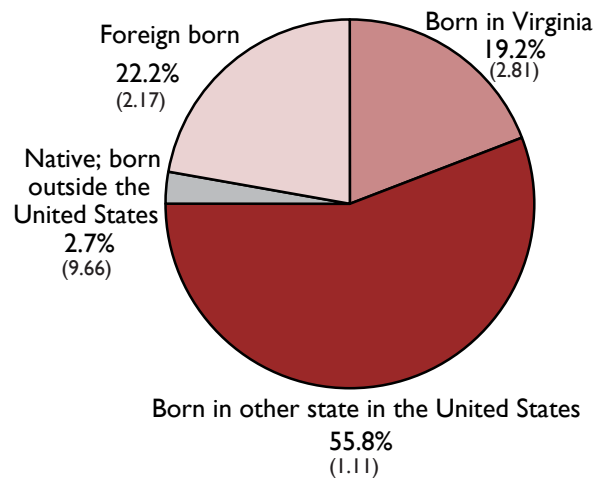


Figure 8: Place of Birth (Female)



Coefficient of Variation (CV) = Percent of Variability

Reliable = CV < 5.00

Less Reliable = 5.00 < CV < 15.00

Not Reliable = CV > 15.00

YEAR OF ENTRY

Overall the total foreign born population living in Arlington County has declined by 9.7 percent. In 2000, more than half (58 percent) of the foreign population entered the United States in the previous decade (1990-1999). Almost a decade later, the 2005-2009 ACS estimate shows only 40.3 percent of Arlington's foreign born population entered the United States in the year 2000 or later. As shown in Figure 9, the number of foreign born Arlington residents that entered the United States between 1990-1999 declined by 57.6 percent from 2000 to 2005-2009.

Figure 10 looks at the entry year based on time increments from the year each survey was conducted. For example, the estimate of the previous time period

of 1990-1999 for the 2000 Census was compared to the estimate for 2000 or later for the 2005-2009 ACS. Overall, the 2005-2009 ACS estimates show that within Arlington's foreign population, there is a higher percentage of those that entered the United States in the combined time periods of 10-19 years ago or 20 years ago and earlier. Compared to the 2000 Census, most (58.0 percent) of the foreign population entered the United States within the 9 previous years from when the survey was administered. This possibly shows that Arlington's foreign born residents are shifting more towards those that immigrated more than 10 years ago to the United States compared to those that are recent immigrants.

Figure 9: Year of Entry (Foreign Population)

	2000		2005-2009 ACS		CV	Change		Statistically Significant
	Persons	Percent	Persons	Percent		Persons	Percent	
Total Foreign	52,693	100.0%	47,560	100.0%	(1.95)	-5,133	-9.7%	YES
2000 or Later	-	-	19,157	40.3%	(4.32)	-	-	-
1990-1999	30,543	58.0%	12,938	27.2%	(4.94)	-17,605	-57.6%	YES
1980-1989	13,324	25.3%	7,988	16.8%	(6.30)	-5,336	-40.0%	YES
Before 1980	8,826	16.7%	7,477	15.7%	(5.24)	-1,349	-15.3%	YES

Figure 10: Year of Entry by Increments of Survey Date

	2000 Census			2005-2009 ACS		
	Years	Persons	Percent	Years	Persons	Percent
9 Years Ago	1990-1999	30,543	58.0%	2000 or Later	19,157	40.3%
10-19 Years Ago	1980-1989	13,324	25.3%	1990-1999	12,938	27.2%
20 Years Ago and Earlier	Before 1980	8,826	16.7%	Before 1990	15,465	32.5%

Coefficient of Variation (CV) = Percent of Variability

Reliable = CV < 5.00

Less Reliable = 5.00 < CV < 15.00

Not Reliable = CV > 15.00

COUNTRY OF ORIGIN

The U.S. Census Bureau reports over 100 countries of origin for the foreign population. For the purpose of this report, the countries have been grouped into five main categories. These categories include Europe, Asia, Africa, Oceania, and the Americas. The 2005-2009 ACS estimates that the largest share, 46.2 percent, of Arlington's foreign population was born in the Americas. While those from the Americas represent almost half of the foreign population, the total number declined since 2000 by an estimated 4,897 persons. This change was determined to be statistically significant and unlikely to be based on a sampling error.

The change from 2000 to 2005-2009 for the foreign population from countries located in Europe, Asia, Africa or Oceania were considered not to be statistically significant. However, it is important to identify the trend within the 2005-2009 ACS. Arlington's foreign residents born in Asia make up the second largest share of foreign residents at 30.7 percent. Those from a European or African country make up similar shares of the foreign population at 11.8 and 10.8 percent respectively. The estimate of 259 residents from an Oceania country is not considered to be reliable due to a high CV value. All other 2005-2009 ACS estimates are considered reliable.

Figure 11: Country of Origin (Foreign Population)

	2000		2005-2009 ACS			Change		Statistically Significant
	Persons	Percent	Persons	Percent	CV	Persons	Percent	
Total Foreign	52,693	100.0%	47,560	100.0%	(1.95)	-5,133	-9.7%	YES
Europe	5,245	10.0%	5,611	11.8%	(6.54)	366	7.0%	NO
Asia	15,376	29.2%	14,617	30.7%	(3.21)	-759	-4.9%	NO
Africa	5,014	9.5%	5,118	10.8%	(10.61)	104	2.1%	NO
Oceania	206	0.4%	259	0.5%	(24.41)	53	25.7%	NO
Americas	26,852	51.0%	21,955	46.2%	(2.72)	-4,897	-18.2%	YES

Coefficient of Variation (CV) = Percent of Variability

Reliable = CV < 5.00

Less Reliable = 5.00 < CV < 15.00

Not Reliable = CV > 15.00

Published and Forthcoming Reports

A series of 2005-2009 ACS 5-Year Estimate reports will be released in 2011. Below is a list of ACS topics and release months.

Overview (January 2011)

Households and Families (February 2011)

Age (February 2011)

Race and Ethnicity (March 2011)

Language (March 2011)

Employment (April 2011)

Education (May 2011)

Income (May 2011)

Poverty (June 2011)

Journey to Work (June 2011)

Housing (July 2011)

Once published, copies of the reports may be downloaded at the following location:

www.arlingtonva.us/PRAT

The Planning Research and Analysis Team (PRAT) is part of Arlington County Planning Division and is responsible for maintaining, analyzing, and disseminating information related to planning development and demographics.

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